



Vascular Disease

PREDICTORS OF EARLY MORTALITY IN PATIENTS WITH CRITICAL LIMB ISCHEMIA CAUSED BY ISOLATED BELOW-THE-KNEE ARTERY DISEASE

ACC Moderated Poster Contributions
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Background: It has already been reported that presence of critical limb ischemia (CLI) associated with high mortality. In this study, we sought to investigate the predictors of early mortality in patients with CLI caused by isolated below-the-knee (BTK) artery disease.

Methods: This study was multicenter retrospective observational study of prospective maintained database. From April 2004 to October 2010, total of 464 patients with CLI who underwent BTK angioplasty (398 patients), and infrapopliteal bypass surgery (66 patients) were enrolled.

Results: Mean follow-up period was 536 ± 467 days. Sixty-two percent had chronic renal failure, 29% had Cerebro-vascular disease, and 14% were with anemia. Mean age was 72 ± 10 years. Rutherford class IV was found in 84 limbs, V in 287 limbs and VI in 93 limbs. Mean ankle-brachial index before initial procedure was 0.76 ± 0.27 . All-cause death within two year was accounted for 27.0%. Multivariate logistic regression analysis was performed to determine predictors of early mortality. Age, chronic renal failure, less than 0.6 of ABI before procedure, and Rutherford class were independent predictors of all-cause death.

Conclusions: In patients with CLI caused by isolated BTK disease, Age, chronic renal failure, less than 0.6 of ABI before procedure, and Rutherford class were the independent predictors of early mortality. Patients who have these predictors may indicate endovascular treatment which is less invasive and less expensive than open bypass surgery.

Predictors of early mortality in patients with critical limb ischemia caused by isolated below-the-knee artery disease

characteristic	Univariate Analysis		Multivariate Analysis	
	HR (95% CI)	P Value	HR (95% CI)	P Value
Age > 70	1.62 (1.12-2.35)	0.011	1.90 (1.23-2.93)	0.004
Anemia	1.79 (1.15-2.77)	0.001	1.60 (0.98-2.63)	0.063
Hypertension	1.68 (1.05-2.69)	0.030	1.51 (0.88-2.56)	0.132
CRF	2.07 (1.38-3.10)	<0.001	1.83 (1.16-2.90)	0.010
CVD	1.94 (1.35-2.77)	<0.001	1.63 (1.07-2.47)	0.023
ABI<0.6	1.80 (1.18-2.76)	0.006	1.64 (1.06-2.51)	0.026
Rutherford class, 4-6	1.90 (1.43-2.54)	<0.001	1.78 (1.29-2.45)	<0.001

CRF = chronic renal failure, defined as creatinine > 2.0 mg/dl

Anemia defined as hemoglobin < 9.0g/dl

CVD = Cerebro-vascular disease ABI = Ankle-brachial index